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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/443,684	11/18/1999	ROBERT E. PENTECOST	10990654-1	7581

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EXAMINER
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EBRAHIMI DEHKORDY, SAEID

ART UNIT	PAPER NUMBER
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2626

DATE MAILED: 01/15/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/443,684

Applicant(s)

PENTECOST ET AL.

Examiner

Saeid Ebrahimi-dehKordy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **FINAL ACTION**

Applicant's amendment filed 10/09/03 has been entered and made of record

1. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vidyanand (U.S. Patent 6,330,071) in view of Suzuki et al (U.S. patent 5,923,013)

Regarding claim 1, 10, 15 and 21 Vidyanand discloses: An apparatus for printing pages of a print job, comprising: a page analyzer operative to identify static page aspects and variable page aspects from page data within a print job (please note Figs. 6 and 7 column 4 lines 35-40 where the master or static data and variable data are analyzed and sent to be printed) a converting apparatus communicating with the page analyzer and operative to convert the static page aspects into static page layout objects and the variable page aspects into variable print data (please note column 4 lines 41-47 where the to break up and convert the job 701) an identifying apparatus communicating with the converting apparatus and operative to identify the static page layout objects in the manner allowing for an optimized form to be created and to allow for appropriate

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Merging with the variable print data (please note Fig.8 column 4 lines 48-56 where the part of the job static or master and variable data are put together and merged to create one page). An optimizer apparatus communicating with the identifying apparatus and operative to convert the static page layout objects to an optimized form (please note Fig.14 lines 49-57 where the detection mechanism 1406 detect that the job is a special job and puts it in optimized form) a storage apparatus communicating with the optimizer apparatus and operative to store at least one instantiation of the static page layout objects in the optimized form (please note Fig.12 and 13 where the appropriate and optimized master or static page is stored in the page buffer) and a merging apparatus communicating with the storing apparatus and operative to merge the static page layout objects with the variable print data to create merged- print data (please note Fig.12 and 13 column 6 lines 22-24 where the variable page is then overlaid on to the master or static page and sent to be printed). Vidyanand does not disclose : wherein optimization level to create the optimized form is based on intended usage of the static page layout object by a user; On the other hand Suzuki et al disclose: wherein optimization level to create the optimized form is based on intended usage of the static page layout object by a user (please note Fig.9 column 7 lines 44-66 where the user is being able to optimize or modify the job description file for revision wherein the optimization and modifications are being produced by the user in by in replaceSet field 64).

Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Vidyanad's invention according to the teaching of Suzuki et al,

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Suzuki et al in the same filed of endeavor teaches the way that the static and variable data could be optimized by the user in replacing or the replaceSet.

Regarding claim 2 Vidyanand discloses: The apparatus of claim 1 wherein the page analyzer resides within a printer (please note Fig.14 item 1407 column 6 lines 46-48 the analyzer or disassembler which could be either in the printer or print server).

Regarding claim 3 Vidyanand discloses: The apparatus of claim 1 wherein the page analyzer resides within the printer server (please note Fig.14 item 1407 column 6 lines 46-48).

Regarding claim 4 Vadyanand discloses: The apparatus of claim 1 wherein the optimizer apparatus removes the static page layout objects that are not in an optimized form during the converting activity in order to recover memory (please note Fig.3 column 4 lines 20-32 where the disk space occupied by the static or master data images 302 is typically reclaimed).

Regarding claims 5 and 16 Vadyanand discloses: The apparatus of claim 1 wherein the merging apparatus includes a static page buffer and a variable page buffer the static page buffer capable of receiving raster print data for the optimized form of the static page layout objects and the variable page buffer operative to receive raster print data for the variable print data (please note Fig.8 column 4 lines 48-56).

Regarding claim 6 Vadyanand discloses: The apparatus of claim 5 wherein the merging apparatus is further operative to convert the optimized form of the static page layout objects stored in the storage apparatus to a raster form and to convert the variable print data to a raster form the merging apparatus further operative to initialize

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the static page buffer with the optimized form of the static page layout objects in the raster form and thereafter to merge the optimized form of the static page layout objects with the variable print data by transmitting the variable print data in the raster form to the variable page buffer (please note Figs.12 and 13 column 6 lines 17-25 where the optimized variable data is overlaid the on to the master or static data).

Regarding claim 7 Vidyanand discloses: The apparatus of claim 1 wherein the static page aspects comprise static image elements (please note column 4 lines 29-30).

Regarding claim 8 Vidyanand discloses: The apparatus of claim 1 wherein the static page layout objects comprise forms (please note column 4 lines 7-19).

Regarding claim 9 Vidyanand discloses: The apparatus of claim 8 wherein a processed form comprises at least one layer (please note column 5 lines 50-59).

Regarding claim 11 Vidyanand discloses: The page printing apparatus of claim 10 wherein the static layer is formed from static page layout objects (please note column 5 lines 17-20).

Regarding claim 12 Vidyanand discloses: The page printing apparatus of claim 10 wherein the variable layer is formed from variable print data (please note column 5 lines 8-10).

Regarding claim 13 Vidyanand discloses: The page printing apparatus of claim 10 where each of the static layer and the variable layer comprise a process collection of page layout objects including one or more of images, graphics, and text represented in a page description language (please note column 6 lines 34-39).

Regarding claim 14 Vidyanand discloses: The page printing apparatus of claim 10 wherein the storage apparatus is configured to store the static layer for re-use by caching the static layer within the storage apparatus (please note column 5 lines 8-17).

Regarding claim 17 Vidyanand discloses: The method of claim 15 further including removing the static page layout objects present in non-optimized form following converting the at least one instantiation of the static page aspects into the static page layout objects (please note column 6 lines 45-57).

Regarding claim 18 Vidyanand discloses: The method of claim 15 wherein the static page layout objects form a static layer and wherein the variable print data forms a variable layer (please note column 6 lines 17-24).

Regarding claim 19 Vidyanand discloses: The method of claim 18 wherein the step of storing at least one instantiation of the static page layout objects comprises layer caching the static layer within memory for later re-use (please note column 5 lines 8-16).

Regarding claim 20 Vidyanand discloses: The method of claim 15 wherein a plurality of the static page layout objects together provide a form that includes one or more of images graphics and text represented in a page description language (please note column 6 lines 16-24).

Regarding claim 22 Suzuki et al disclose: The apparatus of claim 9 wherein the preprocessed form comprises one or more layers and management of the one or more layers is performed by calling a file system of a printer in order to manage resources of the printer (please note column 5 lines 7-24).

Regarding claim 23 Suzuki et al disclose: The apparatus of claim 22 wherein caching of the one or more layers is performed by establishing a link between individual ones of the layers and the static page layout objects (please note column 8 lines 11-28).

Regarding claim 24 Suzuki et al disclose: The apparatus of claim 23 wherein individual static page layout objects include a field indicative of intended usage of the individual static page layout objects by a user (please note column 7 lines 39-43).

Regarding claim 25 Suzuki et al disclose: The apparatus of claim 24 wherein the field is used by a printer to optimize storage of the static page layout objects (please note column 5 lines 1-5).

Regarding claim 26 Suzuki et al disclose: The apparatus of claim 1 wherein the optimized form is preprocessed to create one or more layers, wherein individual ones of the layers are used to create a page configured for printing by a printer (please note column 6 lines 56-64).

Regarding claim 27 Suzuki et al disclose: The apparatus of claim 26 wherein the individual ones of the layers are independent of each other and are managed by the printer (please note column 6 lines 40-44).

Regarding claim 28 Suzuki et al disclose: The apparatus of claim 26 wherein upon deletion of the optimized form, a correspondingly created cached layer is also deleted (please note column 17 lines 45-52).

Regarding claim 29 Suzuki et al disclose: The apparatus of claim 26 wherein upon renaming of the optimized form, links to individual ones of the layers related to the optimized form are updated (please note column 18 lines 1-13).



### **Conclusion**

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### **Contact Information**

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (703) 306-3487.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (703) 305-4863.

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**Any response to this action should be mailed to:**

Assistant Commissioner for Patents  
Washington, D.C. 20231

**Or faxed to:**

(703) 872-9306, or (703) 308-9052 (for **formal** communications; please mark

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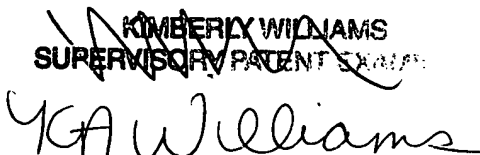
**Or:**

(703) 306-5406 (for **informal** or **draft** communications, please label  
"PROPOSED" or "DRAFT")

**Hand delivered responses** should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy  
Patent Examiner  
Group Art Unit 2626  
December 15 2003

  
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